

Buyahoga Steam Engine

AMERICAN RAILROAD JOURNAL,

AND

IRON MANUFACTURER'S AND MINING GAZETTE.

ESTABLISHED 1831.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 48 S. THIRD ST., PHILADELPHIA.

Saturday, December, 9, 1848.

AGAIN AT OUR POST.

After an absence of several weeks from the city, and the immediate supervision of the business of the office, we are again at the desk, and shall endeavor to reply promptly to the current demands upon our attention, and also to such communications as may have been received, and remained unattended to, during our absence.

To those who have so generously responded to our call, made in September last, for the amount due up to the close of the current volume, we desire to return our grateful thanks—as they have enabled us to get on smoothly thus far—but as there appears to be serious obstructions ahead, on the track, between this and the station, we must remind those who have not yet remitted the small balance due, that we have not, and shall not forget them if they do us, and the Railroad Journal. And that they may not desire to forget us, or the Journal, we would recommend an immediate remittance, and then they will be sure not to forget either us nor the Journal. Send by mail, at our risk, and never mind the postage.

The Pittsburgh Gazette, of 4th instant, says it is "a fact worth knowing, that if the Pennsylvania Central railroad is extended to Pittsburgh within two or three years, and the Pennsylvania and Ohio railroad to Mansfield, in the same time, all of which can be easily accomplished, Philadelphia will have the first continuous and direct railroad communication with the great west, enjoyed by any city in the United States. She will then have access to all the inte-

rior of Ohio, and enjoy a direct railroad communication with Lake-Erie, with Cincinnati, and possibly by that time—and if not, shortly after—with both northern Indiana and Chicago."

Extension of Louisa Railroad to Richmond.

"At a meeting of the citizens of Richmond, says the Republican, of 5th inst., friendly to the extension of the Louisa railroad from the Junction to this city, held at Odd Fellows Hall, on Friday night, on motion of James Lyons, Esq., Gen. Bernard Peyton was called to the chair, and R. H. Gallaher appointed secretary.

"After a few appropriate remarks from Mr. L., setting forth the importance of the proposed improvement, and alluding to the ultimate extension of the Louisa road to the Ohio, he moved an adjournment over to Tuesday night—as the meeting, owing to the inclement weather, was too small to do justice to the object in view."

Would it not be better to work westward first, to the Ohio river, before working eastward? It so seems to us. Use the road now in operation until the Ohio is tapped, and then talk about a rival line to Richmond. This is our advice.—[Ed. R.R.J.]

Changes Produced by Railroads.

There is much truth in the following remarks of the editor of the Scientific American, and of an English paper:

"The full influence which the passenger and traffic railway is to exert on the relations of society is far from being developed, but it is already great.—Its agency is already felt in every department of public and private business. Its speed and punctuality are changing the habits of domestic life, the arrangements of commerce both in detail and in the gross, and even the civil and military organization of states.

"Whoever has stood on an eminence that commands an extensive view of any of our main trunk lines, with its subsidiary branches, in the vicinity of some great centre of industry, must have been struck with its power of annihilating distance. At brief stated intervals the graceful white steam cloud, waving on the wind, like some chivalrous banner, marks the progress of the train along the central line while similar steamers, converging to it on every side, mark the approach of its tributary tenders. It is this organized system of intercourse that enables men in every department of commerce and public service to command for themselves and families the

healthiness and the amenity of a rural life, whilst engaged in those pursuits which can only be successfully followed amid the close, dim and jostling thoroughfares of a city. Even the poor laborer participates in the benefits conferred by this new agent of intercommunication by the extension of the sphere within which he can make his toil available.

"Whoever has occasion to frequent the resorts of business must have noted the insensible change which the railways are producing in its arrangements. To take the first illustration which presents itself, we may refer to our country merchants who used to lay in goods at considerable intervals, and on a comparatively large scale. Now scarcely any of them keep large stocks on hand; by the aid of the railway they receive supplies they immediately want at intervals throughout the year. They are thus less subject to speculative uncertainties of price, less exposed to loss by injuries of accident to their stock, and more able to conduct their business on a safe ready money system. The change is great from the method of some ten years back. In every department of commerce changes more or less akin to this can be traced to the agency of the railroad."

Railway Accidents.

It is almost incredible to those who read of railway accidents in the newspapers that the number of persons injured by railways is comparatively much less than formerly, when the travel was by post coaches and private carriages. The number of passengers, says the London Railway Chronicle, according to the return recently published, who have travelled by railway during the half year ending on the 30th of June last, amounted to 26,330,492, which is just about the population of England, Ireland and Scotland—and some idea may be formed of the tide of human beings who have passed over the country, as Mr. Locke says "by means of two parallel pieces of iron," when we reflect that the official numbers actually represent the transmission of every man, woman and child in the United Kingdom a certain distance, within the short period of six months, at a speed previously unattainable, and reduction of danger, considering the mass of human beings thus transferred, almost infinitesimal. The number of accidents figure 189; 90 resulted in death, and 99 in injuries more or less severe. Of passengers, 6 unfortunately were killed, and 60 hurt from no fault of their own, a wonderful small proportion when we

consider the enormous aggregate who now use this mode of locomotion; the remainder of the casualties is made up from accidents to railway servants, laborers on the lines in construction, and persons who have taken this novel mode of committing suicide, by precipitating themselves from trains or into their way, and who, in fact, have as much to do with the safety of railway travelling as a man blowing out his brains has to do with the safety of fire arms.

Postoffice Department and the Railroads.

From the newspapers we learn that an amicable arrangement has, at length, been made, between the postoffice department, and the Richmond, Fredericksburg and Washington railroad and steamboat company, by which the southern mail will be hereafter sent in a direct line, instead of by the Bay route—or rather on the radii, instead of the circumference of a circle. The National Intelligencer of 4th inst. says "It is with no ordinary satisfaction that we inform our readers that the quarrel between the postoffice department and the railroad and steamboat companies, between this city and Richmond, and which has so much interfered with the transportation of the southern mails, to the great inconvenience of the public, have at length been satisfactorily adjusted—and that the transportation of the mails by that line as formerly, will be resumed on Monday, the 4th of this month." And the Richmond Republican says "It now seems to be certain that the arrangements, for restoring the carrying of the great northern mail to the railroad company, have been completed, and will take effect on Monday next. The Enquirer states that the company have reserved the privilege of changing the schedule on giving sixty days notice, and that the new arrangement has been made to the satisfaction of the James river and Bay line, which has faithfully done its duty. This is a subject of real congratulation to the public. We trust we may never witness another such collision between the parties concerned, as that which has vexed the people for the last 18 months."

We fully concur with the editor of the Republican, and trust that the postoffice department will hereafter endeavor to sustain and advance the railroad interest, rather than to break it down. No important interest in the country better deserves the fostering aid of government than that of railroads. Their influences are felt by all, and in no way more directly than through the transportation of the mails.

Progress of Railroads in the United States.

Rome and its Trade.—For the last few weeks, says the Coosa Journal, business has been very active. Our merchants, all eager for the purchase of cotton have advanced the price to the highest possible rates. We are beginning to hear the whistle of the steam engine in the neighborhood of town, the road is nearly completed to the depot, and the steamboats are daily looked for at our wharf. In short everything is life and activity.

Thus we shall often read of the "railroad whistle" and its influences.

The citizens of Stark and Wayne counties, says the Cincinnati Gazette, are raising the requisite stock to make the Central railway from Pittsburg west through Bellefontaine to Indianapolis. This enterprise is pushed with becoming energy.

At a public meeting held at Alexandria, Va., on the 17th ult., it was resolved to organize a company under the Virginia charter to construct a railway from Alexandria to Orange, and to obtain from the city of Alexandria, for that purpose, a subscription to 100,000 dollars of the stock. A resolution was also unanimously adopted, for extending this line

of road to Guyandotte, and thence on to Memphis, Tenn."

This would be an important matter to Alexandria, and the country through which it would pass; and as it would seem that Virginia cannot construct a railroad from Richmond to the Ohio at Guyandotte, we hope this line may find more favor with the people.

The people in the west, northwest and southwest, says the Cincinnati Gazette of November 25th, are alive to the subject of railways. A road from Mobile to the Ohio is not only discussed, but measures have been taken to commence the work at Mobile, and proceed north to Nashville. And our neighbors at Louisville are on the alert to secure a termination on the Ohio at that city—and their Indiana neighbors unite with them in a project to cross the Ohio at Louisville, and proceed northwest toward lake Michigan and Chicago. One reason urged and openly avowed for vigorous action at this time on this matter, is to prevent the construction of a line direct from St. Louis to Cincinnati, as well as to cut us off from the Southern road. They expect this to cause the business and travel of these States to make Louisville a point! This is all right in them. We like the enterprise of our neighbors. If they keep awake and act while our people sleep they deserve success.

The city council of Louisville have directed their attention to this subject. Gen. Pickering, president of the railway companies from New Albany to Alton, has been before the council, to present the subject. The Courier says:

"He spoke strongly in favor of the road, and hoped the citizens of Louisville would act in concert with the projectors of the road. The state of Illinois has granted a charter to the road, and it completed would defeat the contemplated road from Cincinnati to St. Louis. The attempt of the proprietors of the latter road failed last winter to get a charter, and now is the time for our citizens to act for their own benefit. He stated that the contemplated cost of the road from Alton to the Ohio river would be but little upwards of \$2,500,000."

These are not the only railway projects designed to divert trade and travel from our city. Strong efforts are making to push forward a railroad from Pittsburg, through Massillon, Wooster, Bellefontaine, etc., to Indianapolis, etc. A part of this line is under contract. Our neighbors of Dayton, are engaged in laudable endeavors to make their flourishing city a point on this line, and to make a connection with Sandusky by the Mad river road, and with Columbus, and the points east by a connection with Xenia. This again is all right. Our neighbors look to their own interest, and their enterprise will meet its just reward. All these plans have a tendency to divert business from Cincinnati, and if not counteracted by some energetic movement to push forward our own works, may seriously affect our prosperity.

We have a railway in view from this city to St. Louis, but so little interest is felt in it, that it was found difficult, to raise our quota of the small sum required to survey the route. But this has been lately accomplished, in the main, by the contributions of persons least likely to be benefited by the work, and an engineer is now on the line."

The people are moving in all directions, in favor of railroads, and their extension during the next ten years will surprise many who now think themselves quite in advance of the age.

Cleveland and Columbus Railroad.—The following notice of the commencement of operations upon this important line of communication is from the Cleveland Plaindealer:—

"Clear the Track! The Locomotive is coming.—It is already known that the Boston company which built the Great Western railroad from Boston to Albany, through mountains, over rivers, and through the worst country in the world almost, have taken the contract to build the Cleveland and Columbus railroad in two years. They have the experience, enterprise and ability to do it and it will be done. The whole route is in the hands of sub-contractors 36 miles we understand, leading out from this city, let to Leander Ransom, and another of the old Ohio canal contractors, good men and true. The note of preparation is now sounding along the whole line, and the work is fairly begun. From Columbus to Xenia, the work is already under contract and progressing."

[From the Philadelphia "Commercial List,"]

Pennsylvania Coal Trade for 1848.

From the Lehigh Mines.

The amount of coal shipped from the Lehigh mines during the week ending the 25th ult., and since the opening of the navigation, has been as follows:

	This week.	Total this year—tons.
By Lehigh company, Nov. 28	2,357 09	214,525 12
By Room Run	1,908 12	119,892 12
By Hazleton	931 00	86,485 00
By Beaver Meadow	1,155 18	82,384 09
By Buck Mountain	813 10	70,975 10
By Spring Mountain	1,158 18	63,127 18
By Cranberry Mines	1,599 00	18,323 00
White Haven	68 05	10,424 16
Diamond Co.	214 14	6,288 01
Total	9,880 06	662,426 18

From the Schuylkill Mines.

The amount of coal forwarded by Reading railroad during the week ending the 30th ult., and since the 1st of January, has been as follows:—

	Tons.
From Schuylkill Haven	9,086 17
" Pottsville	3,574 05
" Port Carbon	6,809 13
" Port Clinton	2,671 11

Total this week	22,142 06
Total this year	1,161,288 13

The amount of coal brought to market by the Schuylkill canal during the week ending the 30th ult., and since the opening of the canal, has been as follows:—

	Tons.
From Pottsville and Port Carbon	3,844 12
" Schuylkill Haven	3,000 00
" Port Clinton	800 00

Total this week	7,644 12
Total this year	428,068 16

Recapitulation.—Total Shipments this Season.

By Lehigh companies	672,426 18
By Reading railroad	1,161,288 13
By Schuylkill canal	428,068 16

Total	2,261,784 07
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Pennsylvania Railroad.

Second Annual Report.

We find in the Ledger of 5th inst., the following synopsis of the report made by the president to the shareholders of this company. It is a concise, clear, and many statement of the condition and requirements of the company to complete this noble, and to Philadelphia, necessary work—and the capitalists of Philadelphia must come up to the work, and furnish the balance of means necessary to complete the road, at the earliest possible period, if they desire to advance as Boston has—or even to hold their own like New York—during the past seven years as set forth on another page in the article on "Railroad Progress."* Of the correctness of the estimate of the

* The article here referred to is deferred until next week.

Increased value of property in Boston, as set forth in that article, in consequence of the construction of the Massachusetts railroads,—over and above what it would have advanced without them—we have not the slightest doubt, and we fully believe that similar results would follow upon a similar course of measures by the people of Philadelphia; and we trust therefore that those having the ability will enable the company to push on the work along the whole line, and to completion at the earliest possible period. We now give the synopsis and shall at an early day give the report entire.

"The second annual meeting of the stockholders of the Pennsylvania Railroad Company was held at the office of the company, in this city, yesterday. To this meeting the president of the company presented a lucid and very satisfactory report of the progress that has been made in the great work, the receipts and expenditures, and an estimate of the probable future cost of the road to completion. The object of this company, our readers know, is to connect the cities of Philadelphia and Pittsburg, by a continuous line of railroad—thus opening a direct line of communication from the valley of the Mississippi to the Atlantic seaboard. The importance of such a work to the state and to our city is apparent to all, and fully accounts for the interest felt in the progress of the magnificent undertaking. We learn from the report presented yesterday, that the amount received from instalments paid in is

Of which there has been expended,	\$1,623,710 09
Leaving a balance of	1,108,269 31
Instalments to be collected,	515,440 69
	1,520,000 00

Funds for the prosecution of the work, \$2,035,440 69. The estimate of the whole road, graded for double track and single track laid, including road over the mountains, depots, locomotives, cars, &c., is \$11,140,000. This estimate is for the heaviest trade. But to make the road available to the trade of the country for the entire distance, the whole expenditure is estimated at \$7,860,000. Of this sum, there has been subscribed \$5,250,000, leaving to be subscribed \$2,610,000. The work is naturally divided into two sections; from Harrisburg to the base of the mountains, connecting with the road to Johnstown, forming a line of two hundred and eighty miles long; and from the western base of the mountains to Pittsburg, seventy-six miles, making three hundred and fifty-eight miles as the whole distance between the two cities of Pittsburg and Philadelphia. As there is some doubt of the requisite funds being available as fast as wanted, to complete the whole work, should the entire line be simultaneously placed under contract, the board of directors has applied its whole means to the eastern division, keeping the work as connected as possible, that each section may be made available for dividends as fast as completed. By this policy it is thought the work may be opened to Holydaysburg by next spring a year. The estimated cost to this point complete, is \$4,066,200—on which has been expended, \$1,063,697. Funds in hand and outstanding instalments, 2,035,440. Am't required to complete eastern section, 967,063.

Estimated cost of the western division,	\$2,451,248
On this there has been expended but,	45,004
Allegheny county has subscribed	1,000,000
As Philadelphia's additional subscription of \$1,000,000 by the ordinance cannot be made available until 100 miles of the road shall be in use, that sum is set down to the western section, as is also \$50,000 additional subscription on the line,	1,050,000
Leaving a deficiency to be raised of	355,043

These united deficiencies of 1,322,106 dollars, to complete sections, and about 600,000 to equip the road for business to Holydaysburg, will require an additional subscription of two millions, and which if promptly made, the whole road may be in action by the spring of 1851. The report presents the importance of the crisis in this undertaking to our citizens in the strongest light, urging the necessity of individual subscriptions. As regards the city of Philadelphia, the report declares in express terms that it "has already subscribed as large a proportion to the capital

as would, under any circumstances, be sanctioned by the citizens, or as is desired by the company.—Under no contingency, therefore, is it expected that its corporate subscription will be increased." This is frank and wise, and while our capitalists and business men are fairly informed what is expected of them, the credit of the city is relieved from the depressing apprehension of a further increase of debt. A matter that has worked some inconvenience to the company, from the fact that the ordinance prohibits the disposal of the city's six per cent. bonds at less than par. It is doubted whether there is a safer investment in the union than the bonds issued on account of this subscription by our city, and yet from some cause, they will hardly bring par, while the loans of the Government, which can be no better, are at a premium of about six per cent. Although individual subscription to this work is urged upon the business community as a means of saving and extending trade, many facts are presented, indicating that subscription to this road will prove a sure and profitable investment."

Plank Roads not duly appreciated.

We have occasionally referred to, and published descriptions of plank roads, but never until our recent excursion in central and western New York, have we had an opportunity to test their value and convenience to the traveller and the farmer. Let any man, accustomed to railroad travelling, be compelled to make an excursion of twenty or thirty miles in a post coach, in either direction from the railroad westward from Albany, during the rainy season, and he will fully appreciate the comforts of railway travelling, though they may not make more than sixteen miles an hour—at a cost even of four cents a mile. And if he is so fortunate, after having been dragged for seven or eight hours through the mud, at the rate of nearly three miles an hour, as to come upon a section of plank road, where the same team will take him, with ease, six or seven miles an hour, we have no fear but that he will ever, after such an event, be a strong advocate of plank roads. Such at least were our feelings, and, as like circumstances usually produce like results, we have no fear but that we may rely upon the co-operation of all sensible men, in aid of plank roads, who happen to get caught, as we were, in a stage wagon, between Antwerp, in Jefferson county, and Denmark, in Lewis county, N. Y., on the night of the 23d of November—when we were seven hours and a half in riding 22 miles, and four hours and a half in riding 13 miles next day to Martinsburg—dreary hours those to a lover of railroad travelling; and delightful indeed was the change from that sort of travelling to a good plank road, forty miles between Leyden and Rome, which was performed in less than seven hours, including stops! That is the way to make converts to that sort of travelling; if our readers do not believe it, let them try the experiment, if the following article from the Utica Herald is not satisfactory.

"Our Plank Roads.—Never was a better investment made than that which has been embarked in plank roads by the citizens of Utica. The appearance of our streets, crowded daily at this, naturally unfavorable season, with well filled wagons laden with lumber, manufactured goods, butter, cheese, grain and other staple produce of the country, and by people from the country coming to trade with our merchants, affords perfect evidence of the wisdom of the policy which dictated the liberal expenditure of money in the construction of these roads.

"At this period of the season, one year ago, our streets wore the appearance of the Sabbath. The wares of the merchant lay gathering dust on his shelves; the produce of the farmer was diverted from our city by more accessible communications with other outlets to market, and no lumber found its way to the city except through the channels of water communication. Wood, that indispensable

article of domestic comfort in this inhospitable season, came to the city in small quantities from the surrounding country and commanded prices which rendered it almost too great a luxury for common consumption. It was not only a pinching time for the poor, but the inconvenience of being cut off from easy communication with the country was seriously felt by all classes of our inhabitants. The notes of the merchant given in anticipation of the fall trade fell due, but his wares remained unsold on his shelves and counters. Extensions of time, bank accommodations and in many cases usurious loans, had to be resorted to in order to avert the sheriff's call.

"That these same evils are not experienced now, is in a main degree attributed to the plank roads.—Business in our city is as active at this time as it has usually been the most favorable seasons of summer or winter. There is great store of wood, of lumber, and of all kinds of country produce in market, and prices kept at moderate rates by the wholesale competition.

"The four roads extending from our city are now, in full operation, and the amount of travel on them surpasses the estimates of their projectors. The Bridgewater road, we believe, is doing the largest business and paying the best profits. The Northern road which was the last to be completed, is doing more than double what was anticipated.—The road is some 22 miles in length, extending from the city to within a few miles of Boonville,—to and beyond which place it is to be extended next year. The route was a difficult and expensive one.

"The right of way on the old Northern turnpike, had originally to be purchased at a cost of nearly 8,000 dollars. The grades were many of them very heavy and difficult. In one place to avoid a hill, the turnpike route was abandoned, and a new passage cut round a circuit of some five miles through the woods, at an expense of 500 dollars a mile for clearing away the timber alone. The whole cost of the road was about 50,000 dollars, or upwards of 2,500 per mile, which is, we believe, nearly double the cost of the southern roads.

"The business at this time of the year is mostly the transportation of butter, cheese, wood and sawed lumber to this place for market or shipment.—Of the latter an immense amount has been brought into the city within a few weeks past. We have noticed scores of teams coming in lately laden with planked flooring, prepared at the extensive mills of Rutgers B. Miller, Esq., in Boonville, each wagon containing more than double the usual load drawn on the ordinary roads. This lumber is designed for the extensive yard of H. B. Ostrom, Esq., West Utica. The butter teams are equally heavy laden. The receipts for tolls at the first gate on the Northern road during the week ending on the 18th, were 90 dollars, an average of nearly 15 per day. There are three gates on the road—one, we believe for each seven miles. If the receipts continue at the same rate, the profits of the road must pay its whole cost in four or five years."

Railroad to the Pacific.

We continue in this number the letter of Mr. Whitney, commenced in our last, with copious and interesting extracts from the able report of Major Ethory, showing the impracticability of a more southern route than that heretofore selected for this mighty and necessary enterprise.

(From the Journal of Commerce of Sept. 16th.)

NEW MEXICO AND CALIFORNIA.

Continued from page 775.

"After leaving our last night's camp for a mile, the general appearance, width of the country and soil, much resembles the most fertile parts of that river. This, so far, has decidedly the best soil, and the fall of the river being greater, makes it more easy to irrigate.—p. 63.

"Oct. 25. The general character of the country is much the same as before represented: but before camp it broke into irregular and fantastic looking mountains.—p. 64.

"Oct. 26. The whole way was a succession of steep ascents and descents, paved with sharp angular fragments of basalt and trap. The metallic clink of spurs, and the rattling of the mule's shoes the high black peaks, the dark ravines, and the unearthly looking cactus, which stuck out from the rocks—all favored the idea that we were now treading on the verge of the regions below. This day's journey cost us some ten or fifteen mules. Long and anxious was my study of these mountains, to ascertain their general form and direction. Wherever the eye wandered huge mountains were seen, of black volcanic appearance.—p. 66.

"Oct. 27. Vegetation generally was very scarce. This was the first camp since leaving the Del Norte, in which we had not found good grass.—p. 67.

"Oct. 29. The dust was knee deep in the rear of the trail: the soil appeared good, but for whole acres not the sign of vegetation was to be seen.—p. 68.

"The whole plain from three to six miles wide, is within the level of the Gila, and might easily be irrigated, so it no doubt was by the former tenants of these ruined houses.

"Nov. 1. No alternative seemed to offer but to pursue Carson's old trail 60 miles over a rough country without water, and two if not three days journey. We followed the Gila river 6 or 7 miles when it became necessary to leave it, how long was uncertain. The ascent was very rapid, the hills steep, &c.—p. 71.

"Nov. 2. The thermometer at daylight 25.—p. 72.

"Nov. 4. Geological formation on this slope of the Pinon Lano mountains: 1st. conglomerate of sandstone and pebbles; then red sandstone in layers a foot thick; then granite, very coarse. The depth of the first was many hundred feet, and in many cases its stratification much deranged. Many large masses of sandstone, with their seams of vitrified quartz.

"Although we had no rain except at Mount Graham, where we had a shower which barely sufficed to allay the dust, yet the whole face of the country bears marks of rains and running water.—p. 74.

"Nov. 5. The howitzers did not reach camp last night, yet the grass was so bad and our beds on the round pebbles, everywhere covering the surface of the ground, so uncomfortable, it was determined to move camp.—p. 75.

"Nov. 5. The range of mountains traversed to day is the same as we have been in for some days.—p. 75.

"Since the 1st of Nov. we have been traversing with incredible labor, and great expenditure of mule power, the stronghold of these mountain robbers, having no other object in view than making our distance westward; yet here we are at this camp only five seconds of time west of camp 89.—p. 76.

"Our camp was on a flat sandy plain of small extent, at the mouth of a dry creek.—p. 78.

"Nov. 8. The whole day's journey was

through a canon, and the river was crossed 12 or 15 times. The sand was deep, and occasionally the trail much obstructed by pebbles of paving stone.

"The latitude of this camp, which is within a mile of the spot where we take leave of the mountains, is 33° 05.44, lon. 111° 13.10; height of the river above the sea, 1751 feet. Capt. Cook comes on to the same route near this point.—p. 79.

"The Gila at this point, released from its mountain barrier, flows off quietly at the rate of three miles an hour into a wide plain, which extends south almost as far as the eye can reach. More than four-fifths of the plain was destitute of vegetation; the soil a light brown, loose, sandy earth. I supposed it contained something deleterious to vegetation.—p. 80.

"The soil was moist, and wherever the foot pressed the ground, the salts effloresced, and gave it the appearance of being covered with frost. In this way the numberless tracks of horses and other animals which had at times traversed the plains, were indelible, and could be traced for great distances by the eye, in long white seams.

"In overcoming one set of difficulties, we were now to encounter another. In leaving the mountains we were informed that we bade adieu to grass, and our mules must henceforward subsist on willow, cotton-wood, and the long green ephedra.—p. 81.

"Nov. 12. Looking from our camp north 30° west you see a great plain, with mountains rising in the distance on each side. This prospect has induced some travellers to venture from here in a direct line to Monterey, in California, but there is neither grass nor water on that passage, and thirst and distress overcame, undoubtedly, those who attempted it.—p. 85.

"Nov. 13. At 12 o'clock, after giving our horses a last watering, we started off in a south-western direction. We travelled till long after dark, and dropped down in a dust hole near two large green barked acacias. There was not a sprig of grass, or a drop of water and during the whole night the mules kept up a piteous cry for both.—p. 88.

"We marched on briskly to the Gila, 40 miles from our camp of yesterday.

"Nov. 15. In the morning the General found the mules so much worsted by the 45 miles journey without water or food, that he determined to remain for the day.

"From information collected from the Indians and others, it appears that we shall meet with no more grass from this to the settlements, estimated 300 miles distant.—p. 88.

"Nov. 16. We descended into the wood valley of the Gila, skirted on the south side of the table land, black with basalt pebbles. The hills on the north side were of red and grey rocks, probably granite.—p. 91.

"Nov. 17. The route to-day over a country much the same as that described. Wherever we mounted to the table lands to cut off a bend in the river we found them dreary beyond description, covered with blocks of basalt, with a few intervals of dwarf

growth of lichen. We encamped down in one of the deserted beds of the Gila, where the ground was cracked and drawn into blisters. The night was cold. Thermometer at 6 A. M., 20°, lat. 32 55.52, lon. 113 25.25.

"Nov. 18. High wind all day from the north-west, showing that there was still a barrier of snow-clad mountains between us and Monterey, which we must turn or scale.

"Mounted the table land, and at 12½ o'clock stopped to graze our horses at a little patch of dried spear grass. Leaving this, the ground as far as the eye could reach, was strewn with the black, shining well rounded pebbles.

"At this point, which is about six miles below our camp of this date, the Gila and Colorado must be near together. The hills and mountains appeared to be entirely destitute of vegetation, and on the plains could be seen only at long intervals a few stunted tufts of lama Mexicana and wild wormwood.—p. 92.

"Nov. 20. The table lands were of sand and the bottom of the river constantly received deposits from them.—p. 93.

"Nov. 21. The plains are now almost entirely of sand, and composed of sandy and calcareous loam, with iron pyrites and common salt.

"Nov. 22. The day was warm, the dust oppressive, and the march, 22 miles, very long for our jaded and ill-fed brutes.—The General's horse gave out.

"Nov. 23. We did not move camp to-day, in order to make a refit from last night's capture, and gave our mules an opportunity to take what little grass they could before taking the desert of 90 miles, which lies on the other side of the Colorado, and between us and the water.—p. 95.

"Visit the junction of the Gila and Colorado, due north from the camp 1½ miles distant. The day was stormy, wind blowing fiercely from the north. We mounted a butte of feldspathic granite, and looking 25° east of north, the course of the Colorado was tracked by clouds of flying sand.

"Francisco informs me that the Colorado, seven days up from from the butte continues pretty much as we saw it.—p. 96.

"Nov. 24. The country from the Arkansas to this point, more than 1200 miles, in its adaptation to agriculture, has peculiarities which must forever stamp itself upon the population which inhabit it. All of North Mexico, embracing New Mexico, Chihuahua, Sonora, and the Californias, as far north as the Sacramento, are, as far as the best information goes, the same in the physical character of its surface, and differ but little in climate and products.

"In no part of this vast tract can the rains from heaven be relied upon to any extent for the cultivation of soil. The earth is destitute of trees, and in great part also of any vegetation whatever. A few feeble streams flow in different directions from the great mountains, which in many places traverse this region. These streams are separated sometimes by plains, and sometimes by mountains, without water and without vegetation;

and may be called deserts, so far as they perform any useful part, in the sustenance of animal life.

"The cultivation of the earth is therefore confined to those narrow strips of land which are within the level of the waters of the streams, and where practised in a community with any success or to any extent, involves a degree of subordination and absolute obedience to a chief, repugnant to the habits of our people.

"The chief who directs the time and the quantity of the precious irrigating water, must be implicitly obeyed by the whole community. A departure from his orders, by the waste of water or unjust distribution of it, or neglect to make the proper embankments, may endanger the means of subsistence of many people. He must therefore be armed with power to punish promptly and immediately.

"The profits of labor are too inadequate for the existence of negro slavery. Slavery as practised by the Mexicans under the form of peonage, which enables their masters to get the services of the adult while in the prime of life, without the obligation of rearing him in infancy, supporting him in old age or maintaining his family, affords no data for estimating the profits of slave labor as it exists in the United States.

"I made many inquiries as to the character of the vast region of country embraced in the triangle formed by the Colorado of the west, the del Norte, and the Gila. From all that I could learn, the country does not differ materially in physical character from New Mexico, except perhaps being less denuded of soil and vegetation. The sources of the Salinas, the San Francisco, Azul, San Carlos, and Prieto, tributaries of the Gila, take their rise in it. About their head waters and occasionally along these courses are presented sections of land capable of irrigation.

"The whole extent except on the margin of streams, is said to be destitute of forest trees.

"Departing from the ford of the Colorado in the direction of Sonora, there is a fearful desert to encounter. All accounts concur in representing the journey as one of extreme hardships, and even peril—distance represented at from 4 to 7 days journey.—p. 98.

"Nov. 25. After crossing the Colorado we ascended the river $\frac{1}{2}$ of a mile, when we encountered an immense sand drift. The great highway between Sonora and California lies along the foot of this drift which is continually but slowly encroaching down the valley.

"Nov. 26. The dawn of day found every man on horseback, with a bunch of grass from the Colorado tied to his saddle. After getting under way, the keen air 26° Fahrenheit, made it comfortable to walk; we were now fairly on the desert.—p. 100.

"The desert over which we had passed, ninety miles from water to water, is an immense triangular plain, bounded on one side by the Colorado, on the west by the Cordilleras of California, the coast-chain of mountains which now encircles us, extending from

the Sacramento river to the southern extremity of California, and on the north east by a chain of mountains running south-east and north-west. It is chiefly covered with floating sand, the surface of which in various places is white, with diminutive spinelas.—p. 102.

"I have noticed the only two patches of grass found during the 'jornada.'

"The southern termination of this desert is bounded by the Tecate chain of mountains and the Colorado; but its northern and eastern boundaries are undefined, and I should suppose from the accounts of trappers, and others who have attempted the passage from California to the Gila by a more northern route, that it extends many days travel beyond the chain of barren mountains which bound the horizon in that direction.

"The portal to the mountain through which we passed, was formed by immense buttes of yellow clay and sand, and large flakes of mica and seams of gypsum. Nothing could be more forlorn and desolate.—p. 103.

"Nov. 29. The day was intensely hot, and the sand deep. The animals inflated with water and rushes gave way by scores.

"Nov. 30. We ascended the valley now destitute of both grass and water, to its termination, and then descended to the deserted Indian village of San Philippe. The mountains on either side are lofty, supposed 3000 to 5000 feet high.

"About 9 miles from the camp, we passed the summit which is said to divide the waters flowing into the Colorado from those flowing into the Pacific, but I think it is a mistake.—p. 104.

"We are still to look for the glowing pictures drawn of California. As yet barrenness and desolation hold their reign.

"Dec. 2 and 3. We commenced to ascend another 'divide,' leaving the valley, we ascended the hills to the north; our progress was slow and painful. Descended and visited Indian huts; inmates in great poverty. Thermometer 30°; had no fires, and no covering but sheep skins.—p. 105.

"Dec. 4. The appearance of desolation which the rancheria presents is little calculated to impress us with favorable notions of the agricultural resources of this part of California. The land in the narrow valley is good, but surrounded every where by high barren mountains, and where the land is good, the seasons are too dry for men to attempt cultivation without facilities for irrigation.—p. 107.

"Dec. 5. Received dispatch from San Diego. It was long after night when we halted, and though there may have been plenty of grass, we could not find it. What we did see of the country during the day, did not impress us favorably as to its fertility.

"Dec. 11. Our road leading through a rolling country, of light black soil, destitute of trees and without water.—p. 112.

"Dec. 12. At San Diego. The bay is a narrow arm of the sea, indenting the land some four or five miles, easily defended, and having 20 feet of water at low tide. The

rise is said to be five feet, making the greatest water 25 feet.

"The Rio San Diego runs under ground. Its original debouch was into False bay, where, meeting the waters rolling in from seaward, a bar was formed by the deposit of sand, making the entrance of False bay impracticable.

"Well grounded fears are entertained that the immense quantity of sand discharged by this river will materially injure, if it does not destroy the harbor of San Diego; but this evil could be arrested at slight cost compared with the object to be obtained. However, the commercial metropolis must be at St. Francisco, owing to the greater extent and superiority of the country adjacent.—p. 113.

"Vessels may ride at anchor in the harbor perfectly land-locked, but in very heavy southerly gales some inconvenience may be felt by those not provided with good ground tackle, from the immense volumes of kelp driven into the harbor.—p. 115.

To be Continued.

Baltimore and Ohio Railroad.

Twenty-Second Annual Report.

We are forcibly reminded, on our return to the desk, after an absence of several weeks, of the rapid flight of time, by the appearance of a document which we have long been accustomed to look for with interest, and to peruse with pleasure and profit; and we have looked with an interest greater than usual, for this report, as it is to be the last emanating from the able and honorable gentlemen who has for so many years past, and so successfully, presided over the deliberations of the directors, and the affairs of this pioneer company in the introduction of railroads into this country. On looking through the report, we find that the past year has given, notwithstanding the low price of the productions of the country, a handsome increase of both gross and net receipts on their business; and it is gratifying to us to be able to call attention to the fact that the income of the road has more than trebled during the period, ten years, of Mr. McLane's administration; and if he has been prevented by the jealousy of a neighboring state, from carrying the work through to the Ohio river, and thus accomplishing the great object which he had in view, when he accepted the post tendered to him by the company, he may with pride refer to his last report, which we now give to our readers, and say that the income has been more than trebled, the older portions of the road have been nearly reconstructed, and greatly improved, and the main difficulties of its extension and completion are removed; now let my successors do as much in the same period, and the city of Baltimore will be in possession of advantages for the western trade surpassed only by New York.—And he may be well satisfied with his efforts to advance the great interests of the city of his adoption, and of that portion of the great west looking to this time for their communication with the Atlantic. We trust that relaxation from the active duties of a station of so much labor and anxiety will restore his health and that he may still give to the company, the benefit of his large experience and sound judgement.

ANNUAL REPORT.

At a meeting of the stockholders, held pursuant to the charter, on the second Monday of Oct. 1848, in the city of Baltimore, the president and directors of the Baltimore and

Ohio railroad company submitted the following report and statement of the affairs of the company:

First of the Main Stem.—The affairs and operations of the company are stated in the accounts and statements herewith submitted prepared by the treasurer, and in the letter or annual report of the chief engineer, acting as general superintendent, dated 1st inst.

The statement A shows the condition of the company's affairs on the 30th ult., and the revenue and expenses of the main stem, for the year ending on the same day, are shown by the statement B.

In addition to those documents it will be only necessary succinctly to point the attention of the stockholders, to the general and principal results which they exhibit.

It will appear that the gross income from the main stem, for the year ending September 30th, 1848, has been \$1,213,664 57; the total expenditure properly chargeable thereto \$662,106 50; and the net revenue \$551,558 07; showing an increase over the preceding year of \$111,727 99 in the gross income; \$71,277 52 in the expenditure, and \$40,450 47 in the net revenue.

With the net revenue of \$551,558 02, equal to about 8 per cent. on the capital stock, the board might have declared a handsome dividend in money among the stockholders but for the reasons presently to be noticed.

The board, however, have determined in lieu of dividend to increase the capital stock of the company to the amount of the revenue applied during the year to reconstruction, including the extension to the south side of the basin, the alterations in the bed of the road and to surveys and right of way, and to give to the stockholders certificates or scrip therefor, pursuant to the terms of a resolution adopted by the board on the 7th inst.

The capital of the company, at least all that could be made available, was, as is well known, exhausted before the main stem was completed to Cumberland, and adequately stocked with motive power and machinery. To supply the deficiency it became necessary to use the revenue, when neither the bonds of the state nor those of the company, payable at remote periods, could be negotiated.

For some years, the board were able, after appropriating a portion of each year's net revenue to the above objects, to divide the balance among the stockholders.

During the years, ending respectively September 30th, 1846, and September 30th, 1847, the demands upon the revenue for purposes to which capital, had it not been exhausted, or could it have been made available, would have been applied, were so heavy that the board, as the stockholders are aware, while they declared the usual dividend, were obliged to make a large portion of it payable in the bonds of the company; and during the year just ended, the necessity of a still further increase of the motive power and machinery, and of putting the road on the best and most permanent footing, in view of the business constantly accumulating upon it, have not only absorbed the entire revenue of

the year, but caused engagements to be entered into which must be met out of the year to come. Hence it is that no dividend in money is at this time declared on the capital stock of the company.

When the board undertook to do what has just been adverted to, and what will be presently detailed, they expected to be able to use the credit of the company so as, at all events, to obviate the necessity of any charge upon the income of the year ending September 30th, 1849. But it was found that this could not be done without a greater sacrifice of the company's bonds that would have been at all advisable; besides which, in the then condition of the market, the appearance of the company as a seller, to any extent would have impaired the value of the bonds in the hands of contractors who had agreed to receive them at par, in payment for work—which was on every account to be avoided.

The expenditures properly chargeable to capital, and here particularly referred to, have all had reference to the permanent increase of the business of the road and the most profitable transactions of it, were imperiously called for by the demands of the public, and will realize to the company in an addition to its property and effects and in increased facilities in its daily operations, more than an equivalent to the amount of the outlay.

With this view the board deemed it necessary to add largely to the motive power and machinery; to proceed with the reconstruction of the old, imperfect, and worn out road; to change the original and defective location of the track east of the Monocacy, so that there should occur upon it no curve of less radius than six hundred feet; and to extend a branch road to the south side of the basin, on which the transportation, not intended for distribution in the city, might be done by steam to the water's edge; and much of the horse power in the streets be saved and other serious inconveniences avoided.

The demand for transportation eastward from Cumberland, in 1847, far exceeding as it did, owing to peculiar causes, the experience of previous years, admonished the board of the absolute necessity of providing, by the purchase of additional cars and engines, against a contingency which, having occurred once, might occur again, and when ignorance could not, a second time, be pleaded as an excuse for not being prepared to meet it.

Large as was the increase of the company's business in the year ending in September 1847, the business of the year just ended has, as already shown, exceeded it,—and this under a diminution in the price of produce of every description,—showing how unsafe, indeed how inexcusable, it would have been for the board to have looked upon the demand for transportation in 1847, as temporary, and as too unlikely to occur again to require any unusual expenditure upon the part of the company. Had the board been disposed to take this view, the suits brought by those who claimed damages consequent upon the company's inability to bring their live stock from Cumberland as fast as it ar-

rived there, would have sufficiently admonished them of its danger. And although the board are advised and believed that the company could not be visited with the consequences of an emergency which could not have been foreseen, yet they are also advised, that with the notice that had been given them of a possible demand upon them, it would be at their peril to neglect it. While the purchase of cars and engines was an actual addition to the motive power of the company, the reconstruction of the road so as to increase the safety and facilitate its use, and to avoid all curves of less than six hundred feet radius was a virtual addition to it—for the work which the alteration and improvement would enable each engine to do over and above, the limit of its performance on the old track, with curves of radii as small as four hundred feet, and in some cases, even less, would be equivalent to adding to the number of engines, and ultimately make up, in annual profit to the company, the cost of reconstruction. Nor would be the only gain the saving of wear and tear on all the engines and cars of the company, and the lessening of the risk of accidents being alone sufficient to justify the necessary expenditure.

Nor was it less necessary to provide for the distribution of the freight thus brought in increasing quantities to the border of the city of Baltimore, than it was to provide means for transporting it from Cumberland and other points on the main stem. It is well known, that even heretofore, in the busy season, it has been by the greatest exertions only, and by working day and night, that the track in Pratt street has been sufficient for the passenger and burthen business of the company; and, although the city authorities permitted steam to be used in the streets, yet it was under restrictions which made the ordinance practically useless.

It became necessary, therefore, in the opinion of the board, as a part of their general purpose, to provide such an access to the water's edge with steam power, relieved from the objections attending all street transportation, as will be furnished by the track leading to the south side of the basin. In view then of the objects to be accomplished, and for the reasons here given, the board ordered 10 engines of the first class, and purchased 2 of the second and 1 of the third class, 28 passenger and 171 burthen cars, at a cost of \$240,348, and they put under contract such portions of the main stem as required immediate improvements in the road bed, and the branch to the south side of the basin; the estimated cost of the former being \$200,046, and of the latter \$143,503—making a total proposed extra expenditure of \$583,897.

As this, necessary as it was, in addition to the expenses for interest, &c., exceeded any probable amount of net revenue, it became important that the contracts for the gradation and masonry of the reconstruction and extension should be made payable, as far as possible, in bonds falling due at remote periods, provided this could be done on terms compatible with the interests of the company. Proposals were invited accordingly and con-

tracts in every way satisfactory, payable in bonds, were soon after executed and the work was commenced.

Of the whole sum expended during the year on account of the reconstruction of the track ordered in previous years, \$13,838 02 was paid in bonds, \$200,046 for the alterations in the bed of the road, and \$89,004 on account of the extension of the track to the south side of the basin, are payable in like manner; and in each case the payments are made in bonds, at par, and for amounts within the estimates of the chief engineer.

Up to the 30th September there had been delivered 7 engines, 16 passenger and 171 burthen cars, on account of which there had been paid \$150,653 37. The reconstruction of the track may be said to be finished, on account of which bonds falling due January 1st, 1867, for \$13,838 02, and \$164,645 23 in cash had been paid during the year.—About two-thirds of the gradation and masonry of the "improvements" in the road bed had been completed on account of which, \$113,062 74 in bonds falling due January 1st, 1867, had been issued; and \$16,534 60 had been paid in money on account of right of way and superintendence. The extension to the south side of the basin was about three-fourths completed, and on this account bonds to the amount of \$52,159 75, payable as above, had been issued, and \$22,569 11 paid in money.

The above shows the application that has been made of so much of the net-revenue of the company, for the year just ended, for purposes properly chargeable to capital, and to which capital would have been appropriated, had it not been for the causes already stated.

It will appear from the statements and reports referred to that the outstanding engagements of the company for the objects above enumerated amount to about \$270,317 56, to be paid in bonds and money. The part to be paid in money, amounting to about \$156,809 16, will, to that extent, be a charge on the revenue of the year ending on the 30th of September, 1849—and if to this be added the sum due for borrowed money, say \$35,000, and to the Washington road, say \$22,427 11, there would be the sum of \$214,236 27 in cash, chargeable upon the revenue of the same year.

The total amount of the bonds of the company for all purposes, now outstanding, exclusive of the old loan for the construction of the Washington road, is \$499,346 20, and for the final payment of all engagements on account of the objects already adverted to, the aggregate amount of such bonds, issued and to be issued, according to the estimate and report of the chief engineer, will not exceed the sum of \$623,173 71.

When the engines and cars ordered, as herein stated, shall all be delivered, the motive power and machinery of the company will consist of 23 engines of the 1st class, 4 of the 2d, 15 of the 3d, and 20 of the 4th class; 65 passenger cars, 37 coal cars of wood, and 20 of iron, and 961 burthen cars of all other descriptions; and with the road entirely re-

newed with a single track of heavy rail and improved construction from Cumberland to Baltimore, and extended to the south side of the basin, thus stocked, it is believed that the company will be able to do any amount of business which they at present have reason to believe will be offered.

When the reconstruction now under contract is completed there will remain but two places on the road—one at the Relay house, and the other at Ilchester—where the curves are of a less radius than six hundred feet; the cost of making the change at these places has been estimated at \$64,573.

The laying of the rails on the extension to the south side of the basin has been commenced, and it is supposed by the chief engineer that the track will probably be ready for use by the first of December next.

During the last year there has been transported on the main stem 290,698 passengers and 271,252 tons of freight. The proportion of expenditure properly chargeable to revenue has been 54½ per cent. The number of miles run by the engines, on the main stem and Washington road, has been 1,039,439; and of the 57 engines belonging to the company, during that time, 48 have been kept in constant use. The cost of transporting a passenger per mile, during the same period has been 1.092 cents, and a ton of freight 1.829 cents.

These results, shown by the report of the chief engineer, are important; and are stated in this detail that the stockholders by instituting a comparison with similar results, on other roads of high repute in the country, and corresponding with the Baltimore and Ohio railroad, may be enabled to appreciate the manner in which the board has discharged its duty in the management and working of the main stem. Such a comparison affords perhaps, the best test within reach; and it is one which the board, may with confidence and satisfaction, invite the attention of the stockholders.

There will be found at the end of the chief engineer's report a table, showing at a glance the proportion of expenditure to revenue—the cost of transporting a passenger and a ton of freight, respectively, per mile—and the proportion of engines in use to the whole number owned, on six of the principal and best known railroads of the United States, for the year 1847, which is the latest date to which access has been had to their respective reports. From this it will be seen that the expense per mile run is 10 per cent. and the cost per passenger per mile is 30 per cent. less than the average of those roads, while the cost per ton per mile may be said to be the same with that average, as it is but two per cent. more. The less favorable proportion of expenses to receipts, being about 8 per cent. against the Baltimore and Ohio railroad, is due to causes of temporary operation now nearly at an end, independent of which however, a sufficient explanation of it may be found in the lower average charges of the Baltimore and Ohio railroad, which for passengers are but nine per cent. more, and for freight are 37 per cent. less than the average

of those roads, which have cost \$10,165 per mile more than the Baltimore and Ohio railroad.

Nor must it be forgotten that while all the roads, with which the above comparison has been made, are finished works, realizing all that their proprietors anticipated, the Baltimore and Ohio railroad is as yet incomplete, resting, for the present, at a point which the most sanguine, even at this day, would hesitate to make the terminus of a road, with no other connection with the Ohio than would be afforded by the turnpikes and the common roads of the country.

Second, of the Washington Road.—The affairs of this road are shown by the statements C and D.

It will appear that the gross income from the Washington road, for the year ending 30th September 1848, has been \$255,164 73; the total expenditure properly chargeable thereto \$143,524 92, and the net revenue \$111,639 76; showing an increase over the preceding year of \$36,746 42 in the gross income, \$14,714 22 in the expenditure, and \$22,032 20 in the net revenue.

Of the net revenue of the year the board have declared a dividend, for the last six months, of \$3 upon each share of stock payable on and after the 15th day of November next ensuing the date of this report.

The above statements and the annual report of the chief engineer, will exhibit all the receipts and expenditures of every description on account of this road; will present the same general economy in its working and management as have characterised the operations of the main stem, as already detailed; and the efficient condition of the road, and of the motive power and machinery is satisfactorily shown by the report of the chief engineer. An inspection of these statements and report, to which the attention of the stockholders is invited, will dispense with any further observations in this place.

Third, of the Extension of the Road to the Ohio River.—The stockholders are already aware that authority has been obtained from the State of Virginia for this purpose, on terms satisfactory to the company.

During the last year the surveys of the various routes have been diligently prosecuted. They were entered upon about as early as the 1st of July, 1847, with two parties of engineers, which by the 1st of August following was increased to three. There was at that time, and for some time subsequent, a difficulty in procuring the services of competent and experienced assistants, or the number of parties might have been enlarged, in order, as was earnestly desired, to press on the surveys with the greatest despatch. So urgent was this wish that the location of the route, as is seen, was begun some weeks before the acceptance of the Virginia law conferring the right of way in that State, and before the company was permitted to advance beyond the boundary of Maryland. Within the limits of this State, therefore, the surveys were confined until the middle of October.

The engineers continued uninterruptedly in the field during the entire winter, and ha-

ving extended the lines upon one route as far as Cheat river by the end of December, they were then removed to the vicinity of the Ohio and were engaged up to the end of May in executing the extensive and complex system of surveys necessary for a choice of routes between the mouth of Piles Fork of Buffalo creek and Wheeling. The estimates of cost upon the route surveyed the previous year from Cumberland to a point about 50 miles therefrom in the glands, were so much delayed by the necessity of removing the parties to the westward, and occupying them there with new work, that the chief engineer could not present his report upon those estimates until the 6th of last April. The difficulties of the part of the route which formed the subject of this report, and of the entire country as far as the Cheat and Tygart's Valley rivers, induced the board to call in two consulting engineers to confer with the chief engineer upon the location of this important section of the road. For this purpose the services of Jonathan Knight, of Pennsylvania, and John Childs, of Massachusetts, were secured, and in the month of June the board of engineers, thus constituted, examined the country described, with care, and decided upon all the lines it would be expedient to trace, in order to leave no room for question that the entire ground had been investigated with the utmost caution.

The assistant engineers, having then completed their western surveys, were immediately transferred again to the region between Cumberland and the Cheat river, and have since been laboriously engaged in running the lines so indicated. They have now nearly completed the surveys east of Cheat river, and two of the parties have moved to the ground between that and the Tygart's valley river.

With the present number of parties the survey of the whole route from the present road to the Ohio at Wheeling may be completed before the coming winter, and the lines will have been traced with sufficient accuracy for satisfactory estimates of distance and cost, although not for actual construction without a revision in their details—excepting the greater part of the route upon the first 50 miles, which, if the lines located last year should be ultimately adopted, could be made ready for contract in a very short time. The report of Messrs. Latrobe, Knight and Childs, embracing about the first 27 miles of the extension, was not completed and submitted to the board until their meeting on the 13th day of September. It presents at least three points on the present road, from either of which the extension may be commenced, and also the same number of routes, varying more or less from each other, on which the road may be advantageously constructed; and it contains an elaborate discussion of the estimates and considerations by which, in the opinion of the engineers, the choice among all the routes at the option of the company should be determined. The choice between the points indicated in this report, and the selection it may be proper to make of the route as far as the mouth of Savage, involves ques-

tions of not less importance than any that would be likely to occur upon any part of the entire line; and as the facts upon which these could be satisfactorily decided required to be thoroughly and minutely examined and digested, and as the decision ultimately to be made might seriously affect the interests of important sections of this state, the board deemed it their duty, in the first instance, to refer the report to their committee, in order that any additional information, not embraced in the report, but necessary to a safe and sound conclusion upon the whole subject, might be fully collected and investigated, and submitted in a perspicuous and satisfactory form to the board of directors.

The committee of construction and reconstruction, to whom the subject has been referred, promptly engaged in its investigation, and may be expected to submit their report as soon as a proper respect to its importance and to the considerations involved in the subject, will admit of. It may be proper to observe, in the meantime, that of the practicability of making the road to Wheeling, with grades perfectly within the useful available power of the locomotive engine, and not exceeding in any part 79½ feet to the mile, there appears to be no doubt whatever in the minds of the eminent engineers already mentioned. The selection, therefore, between routes each having peculiar advantages, will be one of the earliest subjects for the earnest consideration of the board of directors.

By order of the Board,

Louis McLane, President.

Office Balt. & Ohio R.R. Co.,
October 9th, 1848.

[A]

Statement of the Affairs of the Baltimore and Ohio Railroad Company.

Dr.	
Stock in the Washington branch road	\$1,032,600 00
Cost of road to Harper's Ferry	4,000,000 00
Cost of road west of Harper's Ferry	3,623,606 28
Reconstruction of road east of Harper's Ferry	625,661 26
Improvements of road bed east of H. Ferry	129,597 34
Extension of road to Locust Point	88,444 26
Sterling bonds in the hands of Baring Brothers & Co.	3,181,005 11
Stock in the Pittsburgh and Connellsville railroad company	1,750 00
Sinking fund for the redemption of the million loan	96,000 00
Invalid fund	196 28
New York and Maryland Iron and Coal company	13,627 69
Due by the Washington branch road	1,855 33
Bills receivable	1,653 29
Due by C. Slack, late agent at Cumberland	775 94
Expenses—repairs and interest, viz:	
On account of construction	15,351 47
On account of surveys west of Cumberland	35,083 50
On account of improvements	
depots	40,356 74
	90,991 71
Locomotive steam power	62,247 28
Burden cars	71,193 84
Passenger cars	17,212 25
Interest on bonds & on loans	
of money	89,525 13
	331,170 21
Cash in the hands of officers	9,042 86
	13,136,940 85

Cr.	
Stock	\$7,000,000 00
Loan at six per cent	1,000,000 00
Loan No. 2, at six per cent	429,951 28
Indemnified bonds	69,105 12
State of Maryland, 5 per cent sterling bonds	3,200,000 00
Baring, Brothers & Co.	53,708 95
Bills payable	89,017 42
Forfeited stock	183 45
Cash	53,405 11
Revenue	1,903,675 92
Less expenses of working the road and keeping it in repair	622,106 50
	1,241,569 42
	13,136,940 85

[B]

Statement of the Revenue and Expenses of the Baltimore and Ohio Railroad Company, on account of the Main Stem of the Road, for the year ending the 30th Sept., 1848.

The company have received for the transportation of passengers, mails and merchandise, during the year ending the 30th Sept. 1848	\$1,882,942 58
And they have due by the postoffice department and individuals	30,721 99
Making together	1,213,661 57
There have been the following expenses during the same period, for working the road and machinery, and keeping them in repair, viz:	
Expenses of transportation	219,962 46
Repairs of railroad	167,365 05
“ locomotives	62,368 52
“ passenger cars	26,491 07
“ burden cars	74,614 10
“ bridges	59,509 18
“ depots, etc	14,990 85
“ water stations	3,946 83
Watching bridges & pumping water at water stations	12,012 35
Losses by accidents, fire, etc	4,023 61
Office and incidental exp., including salaries, fees to counsel, house rent, etc.	16,603 74
Stationary, machinery and shops	219 74
Making an aggregate of expenses of	662,106 50
And showing the net earnings of the road to be	\$551,558 07

[C]

Statement of the Affairs of the Washington Branch Railroad.

Dr.	
Cost of road, real estate, engines and cars	\$1,650,000 00
Cash in the hands of officers	88 32
Cash on hand	120,785 71
	1,770,874 03
Cr.	
Stock	\$1,650,000 00
Annuity account	25,000 00
Baltimore and Ohio railroad	1,855 3
Revenue	169,775 73
Less expenses of working the road and keeping it in repair	75,757 73
	94,018 00
	1,770,874 03

[D]

Statement of the Revenue and Expenses of the Washington Branch of the Baltimore and Ohio Railroad, for the year ending the 30th Sept., 1848.

The company have received for the transportation of passengers, merchandise and mails, on the road for the year ending the 30th day of Septm-

ber, 1848.....\$250,875 42
And there is still due by the postoffice
department and individuals..... 4,289 31
255,164 73

The expenses during the same period
have been as follows, viz:

For bonus to the state, one-fifth of the re-
ceipts from passengers.....45,884 78
Expenses of transportation.....27,365 89
Repairs of the road.....25,909 61
" passenger cars.....8,107 91
" burden cars.....5,991 25
" locomotives.....6,431 99
" bridges.....7,025 93
" depots.....306 12
" water stations.....225 66
Eldridge landing annuity.....1,250 00
Washington property.....745 61
Miscellaneous improvements.....2,881 22
Watching bridges.....614 00
Losses by accidents.....75 40
Passenger cars.....1,710 00
Office and incidental expenses,
including salaries, house rent,
etc.....8,999 60

Making an aggregate of expenses of... 143,524 97

And showing the net earnings for the
year to be.....\$111,639 76
J. I. ATKINSON, Treasurer.
October 1st, 1848.

(To be continued.)

New York and Erie Railroad.

The directors of the New York and Erie
railroad company submit the following re-
port of their proceedings, and also of their re-
ceipts and expenditures, pursuant to the 19th
section of the act incorporating the company,
and in compliance with the resolution of the
assembly, passed February 2, 1843:

Since the date of the last annual report 13
miles of road, extending from the Shawan-
gunk summit to Port Jervis have been com-
pleted, and the trains commenced running
regularly on the 7th inst. This section of
the road is more expensive and difficult of
construction than any other of the same
length between the Hudson river and Lake
Erie, and has always been regarded as the
most formidable obstacle on the whole work.
The road is constructed along the face of the
mountain, is very straight and can be run at
the highest speeds with safety. The adop-
tion of the Delaware river route has enabled
the company to obtain a line descending from
the mountain on a grade of only 45 feet to the
mile. The work is of the most permanent
and substantial character. The iron rail
used is of American manufacture, and weighs
60 lbs. per yard. There are few if any rail-
roads in this country on which a greater am't
of heavy and expensive work has been crowd-
ed together in the same distance.

From Port Jervis to Binghamton, 127
miles, the work was put under contract in
the fall of 1846, and has been vigorously pro-
secuted to the present time. A very large
force having been employed, and satisfactory
progress made, almost the whole of the diffi-
culties between the Hudson river and Bing-
hamton have been encountered, and to over-
come them the whole power and resources of
the company are directed. This part of the
line is in such a state of forwardness, that at
the rate the work has progressed since the
date of the last report, it will be completed

in the fall of the present year. When this
is accomplished, the remaining task of the
company will be comparatively easy.

In anticipation of the completion of the
road to Binghamton the present season, con-
tracts have been made for 21 locomotives of
the largest class, and provision has been made
for a sufficient outfit of freight and passenger
cars, most of which will be built in the shops
of the company.

A considerable portion of the iron rails are
already upon the line of the road, and the
work of laying down the track in the valleys
of the Delaware and Susquehanna will be
commenced about the first of June next.

The grading of the Newburgh branch has
been progressing during the year, and a con-
siderable force is constantly employed upon it.

The receipts of the company from all sources for
the year ending Dec. 31, 1847, were \$2,306,789 49
Cash on hand 1st January, 1847..... 243,099 15

The expenditures during the same time
on account of construction and mate-
rials, repairs and running the road,
and for all other purposes, were.....2,379,446 81

Cash on hand Jan. 1, 1848..... 170,441 83

Tabular statement of the New York and Erie
railroad, made to the secretary of state agreeably to
a resolution of the assembly, passed Feb. 3, 1843.

Number of miles in operation (not including exten-
sion to Port Jervis).....62
Cost of construction, including pier.....\$2,759,835 27
Number of through passengers.....36,506 4
" way ".....118,768 4
Receipts from through passengers.....37,342 06
" way ".....63,648 68
" freight and mail.....153,128 34

Total income from transportation.....254,119 08
Expenses of repairing and running the road, and
maintaining ferry between New York and Pier-
mont.....172,970 68
Amount of dividends, none.

Number of locomotives.....10
" passenger cars.....9
" freight cars—8 wheels.....70
" mail, milk and other cars.....77
" machine shops.....1
Av. No. men in transportation.....182
No. miles run by passenger trains.....89,800
" freight and other trains.....69,832

Tot. miles run by passenger and freight tr...159,632
THOMAS T. TOWNSEND.
CORNELIUS SMITH.

JAMES LAURIE, Civil Engineer.

No. 23 RAILROAD EXCHANGE, BOSTON, MASS.
Railroad Routes Explored and Surveyed. Esti-
mates, Plans and Specifications furnished for Dams,
Bridges, Wharves, and all Engineering Structures
October 14, 1848. 6m*

RAILROAD IRON.

THE TRENTON IRON COMPANY ARE
now turning out one thousand tons of rails per
month, at their works at Trenton, N. J. They are
prepared to enter into contract to furnish rails of any
pattern, and of the very best quality, made exclu-
sively from the famous Andover iron. The position
of the works, on the Delaware river, the Delaware
and Raritan canal, and the Camden and Amboy
railroad, enables them to ship rails at all seasons of
the year. Apply to

COOPER & HEWITT, Agents,
17 Burling Slip, New York.
October 30th, 1848.

TO RAILROAD COMPANIES AND MAN-
ufacturers of railroad Machinery. The subscri-
bers have for sale Am. and English bar iron, of all
sizes; English blister, cast, shear and spring steel;
Juniata rods; caraxles, made of double refined iron;
sheet and boiler iron, cut to pattern; tiers for loco-
motive engines, and other railroad carriage wheels,
made from common and double refined B. O. iron;
the latter a very superior article. The tires are
made by Messrs. Baldwin & Whitney, locomotive
engine manufacturers of this city. Orders addres-
sed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in
the order, a fit to those wheels is guaranteed, saving
to the purchaser the expense of turning them out in-
side. THOMAS & EDMUND GEORGE,
245 N. E. cor. 12th and Market sts., Philad., Pa.

JAMES HERRON, Civil Engineer, OF THE UNITED STATES NAVY YARD, PENSACOLA, FLORIDA.

PATENTEE OF THE
HERRON RAILWAY TRACK.
MODELS of this Track, on the most improved
plans, may be seen at the Engineer's Office
of the New York and Erie Railroad.

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS
OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished
at short notice; also, STEEL SPRINGS
of various kinds; and

SHAFTING FOR FACTORIES.

The above may be had at order at our Car Factory,
REUEL DEAN,
ELIJAH PACKARD, } SPRINGFIELD, MASS.
ISAAC MILLS, } 1y48

TO CONTRACTORS.

OFFICE NASHVILLE & CHATTANOOGA R.R. Co. }
Nashville, 9th November, 1848. }

PROPOSALS WILL BE RECEIVED AT
this office on 20th December next, for the Gra-
duation and Masonry of forty miles of road, viz:
twenty miles next to Nashville, ten miles crossing
the Barran fork of Duck river in Bedford county,
Tennessee, and ten miles on the northwest side of
Tennessee river, in Jackson county, Alabama.

Profiles and plans may be seen at this office after
12th December. By order of the board.

C. F. M. GARNETT,
Chief Engineer.

N. B. Twenty-five miles of road (including the
Tunnel,) and six miles heavy mountain work are
under contract. Seven Hundred Laborers are
wanted by the Contractors. 5y48

NOTICE.

RAILROAD LINE BETWEEN ALBANY
AND BUFFALO, N. Y.

1848.—SCHEDULE FOR RUNNING.—1848.

Going west. 1st train. 2d train. 3d train.
Leaves....Albany....7 1/2 A.M. 3 P.M. 7 P.M.
Pass.....Utica.....1 P.M. 7 P.M. 11 A.M.
Pass.....Syracuse....4 1/2 P.M. 11 P.M. 5 A.M.
Pass.....Auburn.....6 P.M. 1 A.M. 7 A.M.
Pass.....Rochester.12 M.N. 7 A.M. 1 P.M.
Arrives at Buffalo....5 1/2 A.M. 12 M. 6 P.M.
Going east. 1st train. 2d train. 3d train.
Leaves....Buffalo....7 1/2 A.M. 3 P.M. 7 P.M.
Pass.....Rochester.12 M. 7 P.M. 12 M.N.
Pass.....Auburn....6 P.M. 1 A.M. 6 A.M.
Pass.....Syracuse....8 1/2 P.M. 3 A.M. 8 A.M.
Pass.....Utica.....12 M.N. 7 A.M. 11 A.M.
Arrives at Albany....5 A.M. 12 M. 4 P.M.
Adopted February 18, 1848, in convention at Al-
bany. (Copy.) T. Y. Howe, Jr.,
Secretary of the Convention.



RIDER'S PATENT IRON BRIDGE.

THE RIDER IRON BRIDGE having now been fully tested on the Harlem Railroad, by constant use for about eighteen months, and found to answer the full expectations of its most sanguine friends, is now offered to the public with the utmost confidence as to its great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time is so arranged as to secure the combined principles of the Arch, Suspension and Triangle, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

THE RIDER IRON BRIDGE COMPANY are prepared to furnish large quantities of Iron Bridging for Rail Road or other purposes, made under the above Patent, at short notice, and at prices far more economical than the best wood structure, and on certain conditions, the first cost may be made the same as wood.

Models, and pamphlets giving full descriptions of the RIDER BRIDGE, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 74 BROADWAY, up stairs, or of W. RIDER & BROTHERS, 58 Liberty Street, where terms of contract will be made known, and where orders are solicited.

November 25, 1848.

M. M. WHITE,
Agent for the Company.

CAR MANUFACTORY, CINCINNATI, OHIO.



KECK & DAVENPORT WOULD RESPECTFULLY call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description, Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally. Cincinnati, Ohio, October 2, 1848. 411f

RAILROAD IRON.

THE MOUNT SAVAGE IRON WORKS, Allegheny County, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention.

J. F. WINSLOW, President
Mount Savage Iron Co., Troy, N. Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md.

November 6, 1848.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
President of the Newcastle Manuf. Co.

LAP-WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-2 TO 8 INCHES DIAMETER.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,

Patentee.

28 Platt street, New York

ENGINEERS' AND SURVEYERS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.



No 23 Pear street,
ly10. near Third, below Walnut,
Philadelphia.

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLCOTT & ABBOTT
Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
Philadelphia, Pa.

RAILROAD IRON.

3000 TONS, ABOUT 60 LBS. PR lineal yard—deliverable early in the Spring, and of undoubted quality, can be contracted for at a low rate. For sale by
DAVIS, BROOKS & CO.,
68 Broad street.

New York, Sept. 16, 1848, 391f
Also on hand—1000 Tons best quality Rails.

FULLER'S PATENT INDIA RUBBER CAR SPRINGS.—These Springs have been in use for nearly four years, with most complete success, and they are now in use upon most of the principal roads in this country. They are made of the best material, are economical, light, and very easy in their motion—all persons using them are guaranteed against adverse claims.

Offices 78 Broad street New York, and Jas. Lee & Co., 18 India wharf, Boston.

Railroad companies are cautioned against the statements made by the New England car company. The India rubber used by the patentee is the best that can be made, and does not conflict with any existing patent. The ridiculous statement that a patentee may not vend his own invention needs no remark.

The patent for these springs was granted to W. C. Fuller, in Oct., 1845, in the United States and in England; A Mr. Ray claims to have invented another spring, which counsel advise, is a mere evasion of Mr. Fuller's patent, and proceedings are being taken to stop that infringement.

"The New England Car Company" have published an article from the pen of Mr. Hale, president of the Boston and Worcester railroad, expressing his opinion concerning these springs—but they have forgotten to publish the whole of that article; it is therefore given in full now, and the portion omitted by the New England car company is printed in italics, that the public may judge of the manner in which this "company" pervert Mr. Hale's meaning.
G. M. KNEVITT, Agent,
78 Broad St., New York.

September 30, 1848.

[From the Boston Advertiser of the 7th June.]

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. Each spring is composed of several circular layers or rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr. Knevelt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper."

**DIRECT ACTION ENGINES
FOR STEAMBOATS.**

THE PATENT DOUBLE CYLINDERS,

AND ALSO

THE ANNULAR RING PISTON ENGINES,
of Messrs. Maudslay, Sons & Field, of London,
may be built in the United States, under license,
which can be obtained of their agent,THOMAS PROSSER, C. E.,
28 Platt street, New York.

May 6, 1848.

**WILLIAM JESSOP & SONS,
CELEBRATED CAST-STEEL.**The subscribers have on hand, and are constantly
receiving, from their manufactory,

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—Square, flat & octagon.
Best warranted Cast Steel—Square, flat & octagon.
Best Double and Single Shear Steel—Warranted.
Machinery Steel—Round.Best and 2d gy. Sheet Steel—for Saws and other
purposes.German Steel—flat and sq., "W. L. & S." "Eagle"
and "Goat" Stamps.

Genuine "Sykes," L Blister Steel.

Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most fa-
vorable terms, by WM. JESSOP & SONS,

91 John Street, New York,

Also by their Agents—

Curtis & Hand, 47 Commerce St., Philadelphia.

Alex'r Fullerton, & Co., 119 Milk St., Boston.

Stickney & Beatty, South Charles St., Baltimore.

May 6, 1848.

NEW PATENT CAR WHEELS.THE SUBSCRIBERS ARE NOW MANU-
facturing Metallic Plate Wheels of their in-
vention, which are pronounced by those that have
used them, a superior article, and the demand for
them has met the most sanguine expectations of the
inventors. Being made of a superior quality of
Charcoal Iron, they are warranted equal to any
manufacture.We would refer Railroad Companies and others
to the following roads that have them in use. Har-
ford and New Haven, Connecticut River Railroad,
Housatonic, Harlem, Farmington, and Stonington.
SIZER & CO.

January 29, 1848. if

Springfield, Mass.

RAILROAD IRON AND LOCOMOTIVETyres imported to order and constantly on hand
by A. & G. RALSTON
Mar. 20th 4 South Front St., Philadelphia.**TO MACHINISTS & MANUFACTURERS.**The Subscribers have taken the READING
CAR AXLE MANUFACTORY—and are prepared
to execute orders for Axles of every description, and
Wrought Iron Shafts for Steamboats, Mills, etc.,
made from superior material, at short notice. Ad-
dress Reading, Pa.

ANDREW TAYLOR & CO.

August 5, 1848—3m*

**RAILROAD IRON—SHEET IRON—
BRASIER'S RODS—HOOPS—SCROLL
—BANK'S BEST—& OTHER GOOD MAKES
OF ENGLISH IRON.**100 Tons Railroad Iron—Staffordshire make—
56 pounds per yard—shipped from Liverpool 20th
July, expected to land on wharf from 10th to 20th
September.Also have Invoices of Sheet Iron, Brasier's Rods,
Hoops, Scroll, and Band Iron, Banks best, and other
good makes of English Rolled Iron, to arrive,
suitable for Railroad Axles, etc., etc., equal in qual-
ity to American Rolled Iron. I have agency of sev-
eral best makers in England and Wales, and can
import for Railroad Companies, and others, on best
terms, and at much less prices than they can be sup-
plied from American Mills.

DAVID W. WETMORE,

218 Water street.

New York, Sept. 9, 1848.

MATTEWAN MACHINE WORKS.THE MATTEWAN COMPANY HAVE
added to their Machine Works, an extensive
Locomotive Engine department, and are prepared
to execute orders for Locomotive Engines of every
size and pattern—also, Tenders, Wheels, Axles, and
other Railroad Machinery, to which they ask the at-
tention of those who wish such articles, before they
purchase elsewhere.STATIONARY ENGINES, BOILERS, ETC.,
Of any required size or pattern, arranged for driv-
ing Cotton, Woolen, or other Mills, can be had on
favorable terms, and at short notice.COTTON AND WOOLLEN MACHINERY,
Of every description, embodying all the modern im-
provements, second in quality to none in this or any
other country, made to order.**MILL GEARING,**Of every description, may be had at short notice, as
this company has probably the most extensive as-
sortment of patterns in this line, in any section of
the country, and are constantly adding to them.**TOOLS.**Turning Lathes, Slabbing, Planing, Cutting, and
Drilling Machines, of the most approved patterns,
together with all other tools required in machine
shops, may be had at the Mattewan Company's
Shops, Fishkill Landing, or at

39 Pine Street, New York.

WM. B. LEONARD, Agent.

FAIRBANKS' RAILROAD SCALES.THE SUBSCRIBERS are prepared to construct at short
notice, Railroad and Depot Scales, of any desired
length and capacity. Their long experience as ma-
nufacturers—their improvements in the construction
of the various modifications, having reference to
strength, durability, retention of adjustment, accu-
racy of weight and despatch in weighing—and the
long and severe tests to which their scales have been
subjected—combine to ensure for these scales the uni-
versal confidence of the public.No other scales are so extensively used upon Rail-
roads, either in the United States or Great Britain;
and the manufacturers refer with confidence to the
following in the United States.

Eastern Railroad,	Boston and Maine R. R.
Providence Railroad,	Providence & Wor. R.R.
Western Railroad,	Concord R. R.
Old Colony Railroad,	Fitchburg R. R.
Schenectady Railroad,	Syracuse and Utica R. R.
Baltimore & Ohio Road,	Baltimore & Susq. R. R.
Phila. & Reading Road,	Schuylkill Valley R. R.
Central (Ga.) Railroad,	Macon and Western R.R.
New York and Erie Railroad;	

and other principal Railroads in the Western, Mid-
dle and Southern States.

E. & F. FAIRBANKS & CO.

St. Johnsbury, Vt.

Agents { FAIRBANKS & Co., 81 Water st. N. York.

{ A. B. NORRIS, 196 Market st., Philad.

April 22, 1848. 1y*17

PATENT HAMMERED RAILROAD, SHIPand Boat Spikes. The Albany Iron and Nail
Works have always on hand, of their own manufac-
ture, a large assortment of Railroad, Ship and Boat
Spikes, from 2 to 12 inches in length, and of any form
of head. From the excellence of the material al-
ways used in their manufacture, and their very gen-
eral use for railroads and other purposes in this coun-
try, the manufacturers have no hesitation in warrant-
ing them fully equal to the best spikes in market,
both as to quality and appearance. All orders ad-
dressed to the subscriber at the works, will be promp-
tly executed. JOHN F. WINSLOW, Agent.Albany Iron and Nail Works, Troy, N. Y.
The above spikes may be had at factory prices, of
Erastus Corning & Co., Albany; Hart & Merritt,
New York; J. H. Whitney, do.; E. J. Etting, Phil-
adelphia; Wm. E. Coffin & Co., Boston. ja45**RAILROAD IRON.**THE NEW JERSEY IRON CO.'S WORKS,
at Boonton, are now in full operation, and can
execute orders for Railroad Bars of any required
pattern, equal in quality to any made in this coun-
try. Apply to DUDLEY B. FULLER, Ag't

139 Greenwich Street.

New York, October 25, 1848.

CHILLED RAILROAD WHEELS.—THE
undersigned are now prepared to manufacture
their Improved Corrugated Car Wheels, or Wheels
with any form of Spokes or Disks, by a new process
which prevents all strain on the metal, such as is
produced in all other chilled wheels, by the man-
ner of casting and cooling. By this new method of
manufacture, the hubs of all kinds of wheels may
be made whole—that is, without dividing them into
sections—thus rendering the expense of banding un-
necessary; and the wheels subjected to this process
will be much stronger than those of the same size
and weight, when made in the ordinary way.A. WHITNEY & SON,
Willow St. below 13th,

Nov. 10, 1847. [if] Philadelphia, Penna.

THE SUBSCRIBER has on hand
a good assortment of
his best Leveling and
Surveying Instru-
ments, among them
his improved Com-
pass for taking angles
without the needle—
also Bells, suitable
for Churches, Rail-
road Depots, etc.

ANDREW MENEELY.

West Troy, May 12, 1847.

1y*21

PATENT RAILROAD, SHIP AND BOATSpikes. The Troy Iron and Nail Factory keeps
constantly for sale a very extensive assortment of
Wrought Spikes and Nails, from 3 to 10 inches,
manufactured by the subscriber's Patent Machinery,
which after five years' successful operation, and now
almost universal use in the United States (as well
as England, where the subscriber obtained a patent)
are found superior to any ever offered in market.Railroad companies may be supplied with Spikes
having countersink heads suitable to holes in iron
rails, to any amount and on short notice. Almost
all the railroads now in progress in the United States
are fastened with Spikes made at the above named
factory—for which purpose they are found invalua-
ble, as their adhesion is more than double any com-
mon spikes made by the hammer.All orders directed to the Agent, Troy, N. York
will be punctually attended to.

HENRY BURDEN, Agent

Spikes are kept for sale, at Factory Prices, by
& J. Townsend, Albany, and the principal Iron mer-
chants in Albany and Troy; J. I. Brower, 222 Water
St., New York; A. M. Jones, Philadelphia; T. Jar-
viers, Baltimore; Degrand & Smith, Boston.Railroad Companies would do well to forward
their orders as early as practicable, as the subscriber
is desirous of extending the manufacturing so as to
keep pace with the daily increasing demand.

ja45

TO LOCOMOTIVE AND MARINE EN-gine Boiler Builders. Pascal Iron Works,
Philadelphia. Welded Wrought Iron Flues, suita-
ble for Locomotives, Marine and other Steam En-
gine Boilers, from 2 to 5 inches in diameter. Also,
Pipes for Gas, Steam and other purposes; extra
strong Tube for Hydraulic Presses; Hollow Pis-
tons for Pumps of Steam Engines, etc. Manufac-
tured and for sale by

MORRIS TASKER & MORRIS,

Warehouse S. E. corner 3d and Walnut Sts., Phila-
delphia. 11f**CHILLED RAILROAD WHEELS.—THE**
undersigned, the Original Inventor of the Plate
Wheel with solid hub, is prepared to execute all or-
ders for the same, promptly and faithfully, and soli-
cits a share of the patronage for those kind of wheels
which are now so much preferred, and which he ori-
ginally produced after a large expenditure of time
and money. A. TIERS,

Point Pleasant Foundry,

He also offers to furnish Rolling Mill Castings,
and other Mill Gearing, with promptness, having,
he believes, the largest stock of such patterns to be
found in the country. A. T.

Kensington, Philadelphia Co.,

March 12, 1848.

111f

**NORWICH CAR FACTORY,
NORWICH, CONNECTICUT.**

AT the head of navigation on the River Thames, and on the line of the *Norwich and Worcester Railroad*, established for the manufacture of

**RAILROAD CARS,
OF EVERY DESCRIPTION, VIZ:
PASSENGER, FREIGHT AND HAND CARS,
ALSO, VARIOUS KINDS OF
ENGINE TENDERS AND SNOW PLOUGHS.
TRUCKS, WHEELS & AXLES**

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

Any communication addressed to

JAMES D. MOWRY,

General Agent,

Norwich, Conn.,

Will meet with immediate attention. 1y6

MANUFACTURE OF PATENT WIRE

Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by
JOHN A. ROEBLING, Civil Engineer,
Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee
G. A. NICOLLS,
Reading, Pa.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**PASCAL IRON WORKS.****WELDED WROUGHT IRON TUBES.**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse E. E. Corner of Third & Walnut Streets,

PHILADELPHIA.

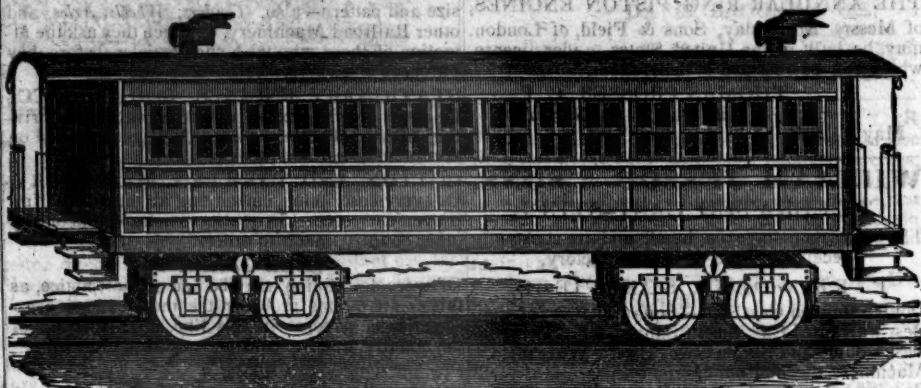
LAWRENCE'S ROSENDALE HYDRAULIC CEMENT. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors, and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight paper-barrels, by **JOHN W. LAWRENCE,**
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 321y

DAVENPORT & BRIDGES'

CAR WORKS, CAMBRIDGEPORT, MASS.



Manufacture to Order, Passenger and Freight-Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes. 10f

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phoenix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,

Philadelphia.

ROBERT NICHOLS, Agent,

No. 79, Water St., New York.

RAILROAD IRON, PIG IRON, ETC.

600 Tons of T Rail 60 lbs. per yard.

25 Tons of 2 $\frac{1}{2}$ by 4 Flat Bars.

25 Tons of 2 $\frac{1}{2}$ by 9-16 Flat Bars.

100 Tons No. 1 Gartsbrorie.

100 Tons Welsh Forge Pigs.

For Sale by **A. & G. RALSTON & CO.**

No. 4 So. Front St., Philadelphia.

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrestor recently patented by the undersigned.

Our improved Spark Arrestor have been extensively used during the last year, on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

R. L. Stevens, President Camden and Amboy Railroad Company; **Richard Peters,** Superintendent Georgia Railroad, Augusta, Ga.; **G. A. Nicolls,** Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; **W. E. Morris,** President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; **E. B. Dudley,** President W. and R. Railroad Company, Wilmington, N. C.; **Col. James Gadsden,** President S. C. and C. Railroad Company, Charleston, S. C.; **W. G. Walker,** Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; **R. S. Van Rensselaer,** Engineer and Sup't Hartford and New Haven Railroad; **W. R. M'Kee,** Sup't Lexington and Ohio Railroad, Lexington, Ky.; **T. L. Smith,** Sup't New Jersey Railroad Trans. Co.; **J. Elliott,** Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; **J. O. Sterns,** Sup't Elizabeth-Ga.; **J. D. Gray,** Sup't Macon Railroad, Macon, Ga.; **J. H. Cleveland,** Sup't Southern Railroad, Monroe, Mich.; **M. F. Chittenden,** Sup't M. P. Central Railroad, Detroit, Mich.; **G. B. Fisk,** President Long Island Railroad, Brooklyn.

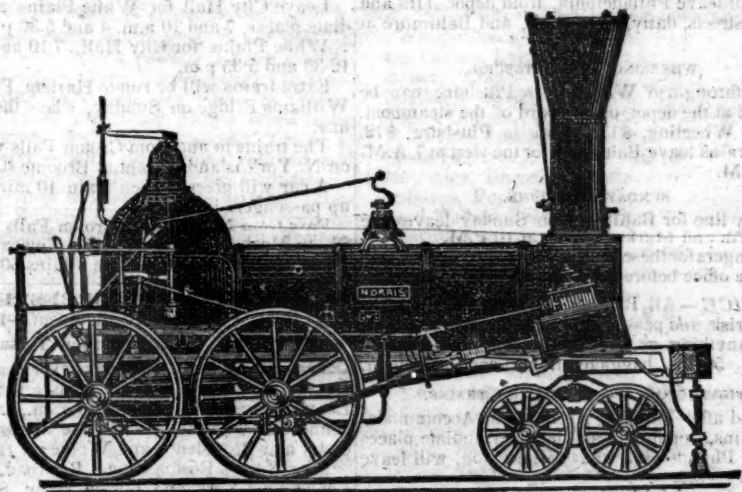
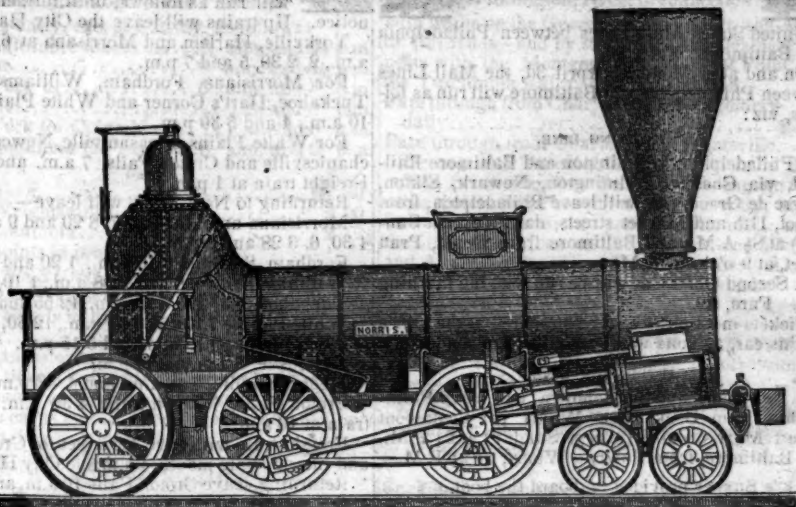
Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

The letters in the figures refer to the article given in the *Journal* of June, 1844.

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NORRIS' LOCOMOTIVE WORKS. BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,



THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS,

Ketchum & Grosvenor, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Paterson, N. J., of 60 Wall street, N. York.

PIG AND BLOOM IRON.—THE SUBSCRIBERS are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
Vine St. Wharf, Philadelphia.

T. & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N. B. Particular attention paid to the manufacture of the most improved Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Mass., Railroads, where our cars are now in constant use.

Dec. 25, 1847.—1y.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,
Albany Iron and Nail Works,

IMPORTANT TO ENGINEERS, CONTRACTORS, and Surveyors.—The Engineer's, Contractor's and Surveyor's Pocket Table Book, by J. M. Scribner, A. M., 264 pages, 24 mo; tuck binding, with gilt edge. Published by Huntington & Savage, 216 Pearl street, New York.

The above work comprises Logarithms of Numbers, Logarithmic Sines and Tangents, Natural Sines and Natural Tangents; the Traverse Table, and a full and extensive set of tables, exhibiting at one view the number of cubic yards contained in any embankment or cutting, and for any base or slope of sides usual in practice. Besides these essential tables, the work comprises 50 pages more of Mensuration, Tables, Weights of Iron, Strength of Materials, Formulas, Diagrams, etc., for laying out railroads, canals and curves; much of which has never before been offered to the public, and all dispensable to the engineer. This book will prove a great saving of time, and will enable the new beginner to furnish results as accurately (and with much greater rapidity) as the most experienced in the profession without its aid. The tables of Logarithms, etc., have been carefully corrected and compared with different editions of the same tables; and all the tables throughout the book have been read carefully by proofs four times; hence the most implicit confidence may be placed in their correctness.

Also, *Scribner's Engineer's and Mechanic's Companion*, new edition, 264 pages, enlarged, with 35 pages of entirely new matter, and much improved throughout.

It is believed these books are so well adapted to suit the above professions, that they cannot afford to do without them, and that they will aid in rewarding well directed mental labor.

Both are for sale by all the principal booksellers throughout the United States and Canada.

WESTERN RAILROAD.—ON AND AFTER Monday, April 5, 1847, the passenger trains will leave daily, Sundays excepted, as follows:

Boston at 8 a. m. and 4 p. m. for Albany.
Albany at 7 1/4 a. m. and 5 p. m. for Boston.
Springfield at 8 1/2 a. m. and 1 p. m. for Albany.
Springfield at 8 1/2 a. m. and 1 1/2 and 3 p. m. (or on arrival of the train from New York) for Boston.

Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveler, New York, or Champion. Returning, leaves New York at 6 1/4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at 11 p. m., and arrives in New York at 6 a. m. Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p. m., Springfield next morning at 8 1/2, and arrive in Albany at 1 1/2 p. m.

The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7 1/4 a. m. and 7 p. m. For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1/4 a. m., 1 and 3 p. m., and passengers proceed directly on to Brattleboro', Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r,
C. A. SEAD, Agent, 27 State street, Boston.

GEORGIA RAILROAD, FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton.	Between Charleston and Dalton.
		271 miles.	408 miles.
1st class.	Boxes of Hats, Bonnets, and Furniture, per cubic foot.....	\$0 18	\$0 28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 40	0 65
	Cotton, per 100 lbs.	0 45	0 75
	Molasses, per hogshead.	8 50	13 50
	" " barrel.	2 50	4 25
	Salt per bushel.	0 18	
	Salt per Liverpool sack.	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows, etc.	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Dalton.

F. C. ARMS,

Supl. of Transportation.

Augusta, Ga., July 15, 1847.

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tusculumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.

Atlanta, Georgia, April 16th, 1846.

CENTRAL RAILROAD—FROM SAVANNAH TO MACON. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight.

Rates of Passage, \$8 00. Freight—On weight goods generally... 50 cts. per hundred.

On measurement goods... 13 cts. per cubic ft.

On brls. wet (except molasses and oil)... \$1 50 per barrel.

On brls. dry (except lime)... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred.

On hhds. and pipes of liquor, not over 120 gallons... \$5 00 per hhd.

On molasses and oil... \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE,
Genl. Supl. Transportation.

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1848.

SUMMER ARRANGEMENT.

United States Mail Lines between Philadelphia and Baltimore. Fare, \$3.

On and after Monday, April 3d, the Mail Lines between Philadelphia and Baltimore will run as follows, viz:

MORNING LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, via Chester, Wilmington, Newark, Elkton, Havre de Grace, etc., will leave Philadelphia, from Depot, 11th and Market streets, daily (except Sunday) at 8½ A.M., and Baltimore from Depot, Pratt street, at 9 o'clock, A.M.

A Second Class Car will be run with the morning line. Fare, \$2.

Tickets must positively be procured at the Office for this car, as none will be sold by the conductors.

AFTERNOON LINE.

Via Newcastle and Frenchtown, will leave Philadelphia, from Dock Street Wharf, per Steamboat Robert Morris, daily (except Sunday) at 2½ P.M., and Baltimore, from Bowly's Wharf, at 2½ P.M.

Supper provided on board the boat.

NIGHT LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, will leave Philadelphia, from depot, 11th and Market streets, daily, at 11 P.M., and Baltimore at 8 P.M.

WHEELING AND PITTSBURG.

Tickets through to Wheeling or Pittsburg, can be procured at the depot, or on board of the steamboat. Fare to Wheeling, \$13. Fare to Pittsburg, \$12.

The trains leave Baltimore for the west at 7 A.M. and 4 P.M.

SUNDAY MAIL LINE.

The only line for Baltimore on Sunday leaves the depot, 11th and Market streets, at 10 P.M.

Passengers for these lines must procure their Tickets at the office before taking their seats in the cars.

NOTICE.—All Baggage by these lines is at its owner's risk, and passengers are expressly prohibited taking anything as baggage, except their wearing apparel. 50 lbs. baggage allowed each passenger.

WILMINGTON ACCOMMODATION TRAINS.

On and after Monday, April 3d, the Accommodation Trains, stopping at all the intermediate places between Philadelphia and Wilmington, will leave as follows, viz:

Leave Philadelphia, from depot 11th and Market streets, daily (Sundays excepted) at 1½ and 4 P.M.

Leave Wilmington, from the depot, Water street, daily (except Sunday) at 7½ A.M. and 4½ P.M.

The Freight Accommodation Train will leave Philadelphia at 7 P.M. and Wilmington at 7 P.M.

The Mail Trains stopping at Chester and Wilmington, leave Philadelphia at 8½ A.M. and 10 P.M.

Wilmington at 1 o'clock, P.M., and 12 midnight. Fare to Wilmington, 50 cts. Fare to Chester, 25 cts.

G. H. HUDDALL, Agent.

March 23, 1848. 1y15

BOSTON AND PROVIDENCE RAILROAD.

On and after Monday, October 2d, the

Trains will run as follows:

Steamboat Train—Leaves Boston at 5 p.m.—Leaves Providence, on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 a.m. and 3½ p.m. Leave Providence at 8½ a.m. and 3½ p.m.

Dedham Trains—Leave Boston at 9 a.m., 12 m., 3, 6, and 10½ p.m. Leave Dedham at 7½ 10½ a.m., 1½, 4½, and 9 p.m.

Stoughton Trains—Leave Boston at 11½ a.m. and 4½ p.m. Leave Stoughton at 8½ a.m. and 2½ p.m.

Freight Trains—Leave Boston at 11 a.m. and 6 p.m. Leave Providence at 4 a.m. and 7 40 a.m.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 a.m., 12 m., 3, 5½ and 10½ p.m. Leave Dedham at 8 10½ a.m., 1½, 4½ and 9 p.m.

WM. RAYMOND LEE, Supl.

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after

Tuesday, June 1st, 1847, the cars

will run as follows, until further notice. Up trains will leave the City Hall for—

Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—

Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m. and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9½ p.m.

ON SUNDAYS, the trains will run as follows: Leave City Hall for Croton Falls, 7 a.m., 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m., 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will precede each train 10 minutes to take up passengers in the city.

Fares from New York to Croton Falls and Somers \$1, to Mechanicsville 87½c., to Newcastle 75c., to Pleasantville 62½c., to White Plains 50c.

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NORWICH AND WORCESTER RAILROAD. Winter Arrangement.—1848.

Accommodation Trains daily, (Sundays excepted.)

Leave Norwich, at 6 a.m., 12 m. and 2½ p.m.

Leave Worcester, at 6½ and 10 a.m., and 4½ p.m. connecting with the trains of the Boston and Worcester and Providence and Worcester railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston, daily, Sundays excepted, at 5 p.m.—At New York from pier No. 1 N. River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ a.m., from Norwich at 7 a.m.

Fares are less when paid for Tickets than when paid in the Cars.

S. H. P. LEE, JR., Supl.

BOSTON AND MAINE RAILROAD.

Winter Arrangement. Commencing Nov. 13, 1848.

Trains leave Boston as follows, viz: For Portland at 7 A.M. and 2½ P.M.

Great Falls at 7 a.m., 2½ and 3½ p.m.

Haverhill at 7 and 11½ a.m., 2½, 3½ and 5 p.m.

Lawrence, at 7, 9, 11½ a.m., 2½, 3½, 5, 6 p.m.

Reading, 7, 9 & 11½ a.m., 2½, 3½, 5, 6, 7½ & 10 p.m.

Trains leave for Boston as follows, viz: From Portland at 7½ a.m., and 3 p.m.

Great Falls at 6½ and 9½ a.m., and 4½ p.m.

Haverhill at 7, 8½ and 11 a.m., 3 and 6½ p.m.

Lawrence at 6½, 7½, 8½, 11½ a.m., 12½, 3½, 6½ p.m.

Reading at 6½, 7, 7½, 9½, 11½ a.m., 1½, 3½, 7½, 9 p.m.

MEDFORD BRANCH TRAINS. From Medford at 6½, 8, 10½ a.m., 2, 4, 6, 9 p.m.

From Boston at 7½, 9½ a.m., 12½, 2½, 5½, 6½, 10 p.m.

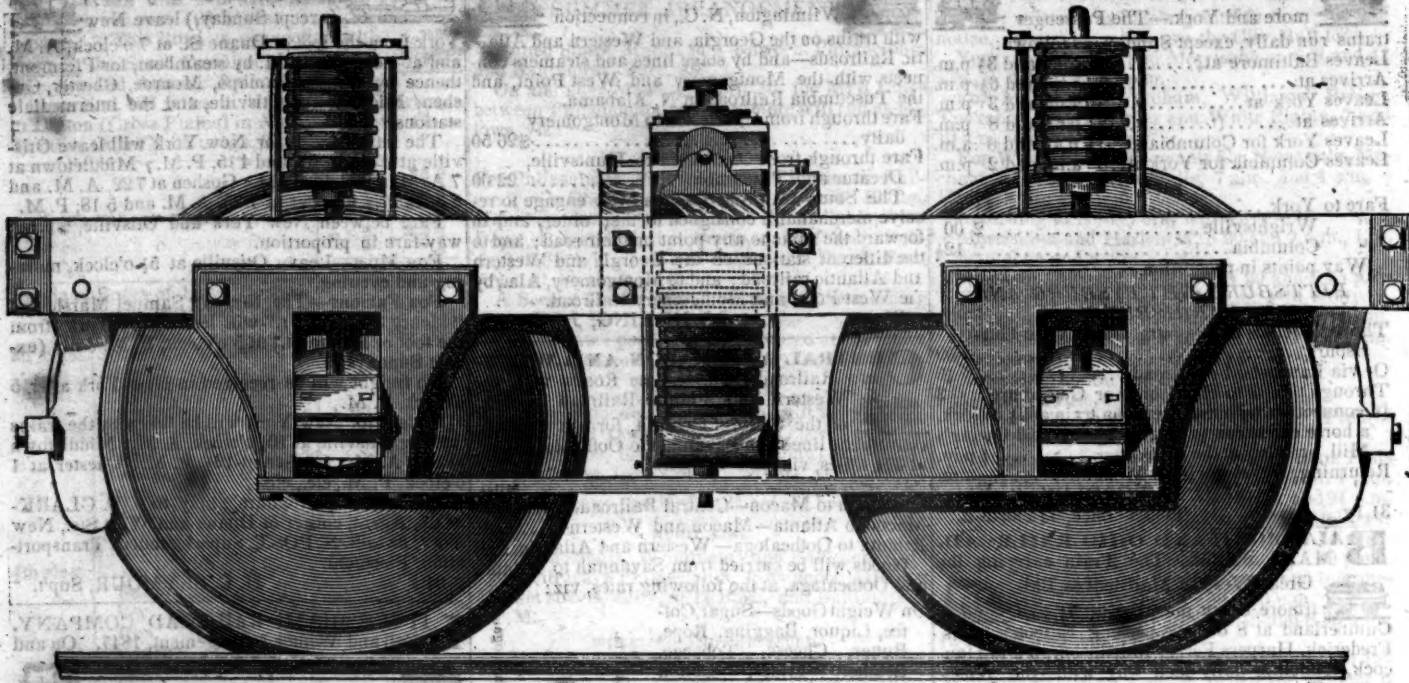
The Depot in Boston is on Haymarket Square.

CHAS. MINOT, Superl.

NEW YORK ANDERIE RAILROAD LINE

THE UNIVERSITY OF CHICAGO

FOWLER M. RAY'S METALLIC INDIA RUBBER CAR SPRINGS.



THE NEW ENGLAND CAR COMPANY have introduced these Springs, and they are now in operation on every Railroad terminating in Boston, and several others in New England and the Middle States. Their qualities are well understood, or may be readily ascertained by every person interested to know them. They require no recommendation from the Company. The only known compound of India Rubber good for anything for this purpose is the Vulcanized India Rubber, invented by Charles Goodyear, of New Haven, and the application of it, and the form in which it is used, were invented by F. M. Ray, of New York. The right to manufacture and sell the substance itself for the purpose of Railroad Carriage Springs, as well as the form and application of it, are held exclusively by the New England Car Company. No other company, or individual, has any right to sell or use it for such purpose, or has attempted so to use it in this country.

The New England Car Company guarantee the right to use the article they sell for Railroad Carriage Springs only, against all adverse rights, whether under patents or otherwise; and all persons and corporations are cautioned against a similar use of the article, when purchased of any other parties.

The Springs they sell are all manufactured in a uniform manner, and under the immediate inspection of their own Agent, and have been proved and known to answer the purpose. None have been manufactured in this country or imported from abroad beside their own, which would at all answer the purpose; and if any such should be produced, it cannot be used for Car Springs, while Goodyear's patents, and the rights of the New England Car Company under them, remain in force.

The New England Car Company are now prepared to answer orders for all that may be called for, on reasonable notice, and uniform and equitable terms. They invite the most careful examination, and the severest scrutiny, into the merits of their Springs, wherever they have applied them. And if after such examination, your Company should judge it for their interest to adopt them, the N. E. Car Company would respectfully invite the patronage which they think they deserve, and are confident of receiving at your hands.

EDWARD CRANE, Agent,
Office 99 State street.

Orders may also be left with **WM. RIDER & BROTHERS**, No. 58 Liberty street, New York, or with **F. M. RAY, Agent,**

100 Broadway, N. Y.

The following article, from the pen of Mr. HALE, the president of the Boston and Worcester railroad, expresses his opinion of this important improvement, as published in the Boston Daily Advertiser of June 7, 1848. He says:

"Of the numerous uses to which the wonderful elasticity and durability of India Rubber renders this material applicable, we are hardly aware of one in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the New-England special train of the Boston and Worcester railroad. It is there used, not only for the springs on which the car rests, but for the springs attached to the draw bar at each end of the car, to prevent any jar on the sudden advancement or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn, that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have ever seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months, in which we have seen the springs in operation, there is no apparent wear or diminution of their efficiency."

The above statement of Mr. Hale agrees with my own observation in all particulars.

WM. PARKER, Supt. B. & W. R. R.
June 8, 1848.

I fully concur in the foregoing statement, from practical observation of its use for the last 5 months, on the Boston and Worcester railroad corporation cars.

D. N. PICKERING, Jr.,
Supt. Car Building B. & W. R. R.
Boston, June 10, 1848.

The New England Car Company have introduced their Vulcanized India Rubber Car Springs on the roads with which we are respectively connected, and we fully concur with Mr. Hale in the above opinion of their character and properties.

DAVENPORT & BRIDGES, Car Builders,
BRADLEY & RICE, Car Builders.
Boston, June, 1848.

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 14 to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

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D. K. MINOR.